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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,132	03/26/2004	Sigmund Frigstad	135270 (553-1044)	8833

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EXAMINER	
CWERN, JONATHAN	
ART UNIT	PAPER NUMBER
3737	

MAIL DATE	DELIVERY MODE
12/31/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/810,132	FRIGSTAD ET AL.	
	Examiner	Art Unit	
	Jonathan G. Cwern	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 October 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7-15,17,18,21-27 and 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-15,17,18,21-27 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/20/08 has been entered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 12-15 and 17-18 are rejected under 35 USC 101 as being directed to non-statutory subject matter because these are method or process claims that do not transform underlying subject matter (such as an article or materials) to a different state or thing, nor are they tied to another statutory class (such as a particular machine). *See* *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (quoting *Benson*, 409 U.S. at 70); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978) (citing *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876)). *See also In re Comiskey*, 499 F.3d 1365, 1376 (Fed. Cir. 2007) (request for rehearing *en banc* pending).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 7-14 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson et al. (US 5878746) in view of DiFilippo et al. (US 2002/0164059).

Lemelson et al. show, diagnostic equipment to acquire and analyze new patient data (column 2, lines 6-61); a database of past patient data sets (standard image stored in fact database, column 7, lines 1-30); a network for interconnecting said diagnostic equipment and a database (the diagnostic equipment and the database are inherently connected, this connection can be called a "network"; also this interaction occurs in "real-time", as real-time can be any time, and interconnected facilities can be the database and diagnostic equipment itself); a controller for accessing the database based on the new patient data (column 2, lines 55-60) and providing automated instructions, wherein the diagnostic equipment compares new and past patient data to determine whether additional information is needed (column 3, line 62-column 4, line 8) and highlights abnormalities in an a new image (feature extractor can extract tumors (abnormalities) from the image, by extracting the feature, the feature is thus "highlighted"; examiner would further like to point out the definition of "highlight" which is

"to attract attention to or emphasize something important", this is accomplished by extracting the tumor feature, column 6, lines 27-58). Also, the diagnostic equipment acquires ultrasound images (column 2, line 12); can identify the size of the heart (column 8, lines 50-52); comparing new and past data (column 7, lines 1-28); and identifying matches between new and past data (column 6, lines 45-50).

DiFilippo et al. disclose a remote medical image analysis system. DiFilippo et al. teach that images can be highlighted by coloring regions ([0034]-[0037]).

It would have been obvious, at the time the invention was made, to have color coded regions of interest as taught by DiFilippo et al., in the system of Lemelson et al. For example, it would be beneficial to color areas of the tumor extracted by Lemelson et al., in order for the physician to easily locate it in the image. As the tumor is unique to the current patient, the abnormalities highlighted will also be unique to the current patient. Also, the tumor would not be a feature found in the database, as the data in the database corresponds to past patients. Therefore, anything highlighted in the new patient data, would not be a feature found in the database.

Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson et al. (US 5878746) in view of DiFilippo et al. (US 2002/0164059) as applied to claim 1 and 12 above, and further in view of Brady et al. (US 7200612).

Brady et al. disclose a system for processing data for interpretation. Brady et al. teach accessing the database based on wall velocity values (column 4, lines 1-10).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have accessed the database based on wall velocity values as

taught by Brady et al., in the combined system of Lemelson et al. and DiFilippo et al. Wall velocity values are typically used to analyze the heart, such as to derive the position of the heart, and are clinically significant.

Claims 21-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson et al. (US 5878746) in view of Brady et al. (US 7200612).

Lemelson et al. show, diagnostic equipment to acquire and analyze new patient data (column 2, lines 6-61); a database of past patient data sets (standard image stored in fact database, column 7, lines 1-30); a network for interconnecting said diagnostic equipment and a database (the diagnostic equipment and the database are inherently connected, this connection can be called a "network"; also this interaction occurs in "real-time", as real-time can be any time, and interconnected facilities can be the database and diagnostic equipment itself); a controller for accessing the database based on the new patient data (column 2, lines 55-60) and providing automated instructions, wherein the diagnostic equipment compares new and past patient data to determine whether additional information is needed (column 3, line 62-column 4, line 8) and highlights abnormalities in an a new image (feature extractor can extract tumors (abnormalities) from the image, by extracting the feature, the feature is thus "highlighted"; examiner would further like to point out the definition of "highlight" which is "to attract attention to or emphasize something important", this is accomplished by extracting the tumor feature, column 6, lines 27-58). Also, the diagnostic equipment acquires ultrasound images (column 2, line 12); can identify the size of the heart

(column 8, lines 50-52); comparing new and past data (column 7, lines 1-28); and identifying matches between new and past data (column 6, lines 45-50).

Brady et al. disclose a system for processing data for interpretation. Brady et al. teach accessing the database based on wall velocity values (column 4, lines 1-10). Also, the database connects different hospitals from around the world (column 4, lines 48-57).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have accessed the database based on wall velocity values as taught by Brady et al., in the system of Lemelson et al. Wall velocity values are typically used to analyze the heart, such as to derive the position of the heart, and are clinically significant. Also, one of ordinary skill in the art would recognize the benefit of connecting health care facilities. This allows for more data to be compared with the newly imaged data, improving the accuracy of the diagnosis.

Response to Arguments

Applicant's arguments filed 10/20/08 have been fully considered but they are not persuasive.

In regards to applicant's arguments that the references do not teach highlighting abnormalities that are unique to a current patient, examiner respectfully disagrees. As each person is a unique individual, comprised of unique body parts, any highlighting of an image of the patient will be reflective of something unique to the patient. Also, these features would not be found in the database, as the data in the database corresponds to

past patients. Therefore, anything highlighted in the new patient data, would not be a feature found in the database.

In regards to applicant's arguments that the references do not teach an interconnection between healthcare facilities, examiner respectfully disagrees. Regardless of whether or not there is anything between the healthcare facilities, they are still connected. If both healthcare facilities connect to the same database, they are connected. One facility can submit information to the database, which is then sent to another healthcare facility. Thus, they are connected. Applicant further argues, that in the broadest sense the healthcare facilities may be connected, however they do not provide "on-line real-time interaction". As stated above, one facility can submit information to the database, which is then sent to another healthcare facility. This is done in "real-time". Applicant asserts that "generally uploading information to a database that is then accessible is not the same as providing any type of on-line real-time interaction". Examiner respectfully disagrees. This assertion appears to be simply applicant's opinion. Applicant has not given any specific definition of "real-time". The interaction described above certainly appears to take place in real-time.

In another example, the database could be located in a healthcare facility. Therefore, just the uploading or downloading of the data from one healthcare facility to the database located in another healthcare facility would be an "on-line real-time interaction" between different interconnected healthcare facilities.

The examiner would further point out that the interconnection is "between said diagnostic equipment and said database". The diagnostic equipment and the database

can also be considered "facilities", and therefore communication between them would take place in real-time.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Cwern whose telephone number is (571)270-1560. The examiner can normally be reached on Monday through Friday 9:30AM - 6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jonathan G Cwern/
Examiner, Art Unit 3737

/Ruth S. Smith/
Primary Examiner, Art Unit 3737